

REMARKS

Claim 38, which has been amended, remains in the referenced application.

Claim 38 stands rejected under 35 U.S.C. §112, first paragraph, on the basis the specification does not disclose a method of manufacturing a vortex nozzle adapted to provide vacuum measurements. Responsive to the foregoing rejection, Applicant has amended claim 38 to recite a method of configuring a vortex nozzle to permit measurement of vacuum within the vortex nozzle as per lines 5-20 on page 16 of Applicant's disclosure. Applicant accordingly respectfully submits that claim 38 as amended recites subject matter described in the specification. Applicant therefore respectfully requests the withdrawal of the 35 U.S.C. §112, first paragraph, rejection of claim 38.

Claim 38 stands rejected under 35 U.S.C. §112, second paragraph, on the basis it is vague and indefinite as to how a vortex nozzle can provide vacuum measurements. Responsive to the foregoing rejection, Applicant has amended claim 38 to recite a method of configuring a vortex nozzle to permit measurement of vacuum within the vortex nozzle as per page 16, in lines 5-20 of Applicant's disclosure. Claim 38 now recites the method whereby a vortex nozzle may be configured to permit vacuum measurements therein. Applicant accordingly respectfully submits that claim 38 as amended is not vague and indefinite. Applicant therefore respectfully requests the withdrawal of the 35 U.S.C. §112, second paragraph, rejection of claim 38.

Claim 38 stands rejected under 35 U.S.C. §102(b) by Ashbrook (U.S. Patent No. 4,261, 521). Responsive to the foregoing rejection, Applicant has amended claim 38 to more clearly define the term self-actuating. As per lines 5-20 on page 16 of Applicant's disclosure, the seal is self-actuating in that fluid pressure on the inner side of the seal generated by fluid flowing within the housing forces the seal within the aperture of the housing thereby creating a fluid tight seal.

As such, increasing fluid pressure within the housing increasingly deforms the seal over the aperture thereby creating an increasingly tight fluid seal. Claim 38 has been amended in accordance with the specification such that the seal is self-actuating in that fluid pressure maintains the seal over the aperture and increasing fluid pressure increasingly deforms the seal over the aperture of the housing.

In contrast to the claimed invention, Ashbrook does not provide any disclosure regarding whether there is a seal located at the point where the vortex inlet quill 43 enters the vortex tube 14. Similarly, Ashbrook does not provide any disclosure regarding whether there is a seal located at the point where the vortex inlet quill 43' enters the vortex tube 13. The o-ring 42 referenced by the Examiner is between the cylindrical body portion 10 and the vortex tube 14, which is not in any way connected with the vortex inlet quill 43. In practice, Ashbrook employs an o-ring at the point where the vortex inlet quills 43 and 43' enter a respective vortex tube 14 and 13. Ashbrook accordingly in no way anticipates claim 38 as amended because an o-ring is not a self-actuating seal that increasingly deforms over an opening responsive to increasing fluid pressure. An o-ring is in fact opposite to a self-actuating seal in that increasing fluid pressure diminishes the ability of an o-ring to provide a fluid tight seal. Applicant therefore respectfully submits Ashbrook does not anticipate claim 38 as amended because Ashbrook simply does not disclose a self-actuating seal.

Claim 38 stands rejected under 35 U.S.C. §102(b) by Gerteis (U.S. Patent No. 5,169, 525). Responsive to the foregoing rejection, Applicant has amended claim 38 to more clearly define the term self-actuating as previously described. Gerteis discloses a feed pipe 21 inserted into a tube 23 in order to deliver a liquid suspension into a drum 7. After delivery of the liquid suspension, the feed pipe 21 is removed and the tube 23 closed utilizing a squeeze valve 25 filled

with a pneumatic pressure medium via a line 26. Gerteis discloses only that the squeeze valve 25 is closed using the pneumatic pressure medium. The squeeze valve 25 accordingly is not self-actuating because the fluid pressure of the liquid suspension within the drum 7 in no way deforms the squeeze valve 25 over the tube 23. Moreover, Gerteis provides absolutely no disclosure as to whether increasing pressure within the drum 7 increasingly closes the squeeze valve 25 over the tube 23. As such, the squeeze valve 25 simply is not a self-actuating seal because the squeeze valve 25 does not deform over the tube 23 responsive to pressure within the drum 7 and further the squeeze valve 25 does not increasingly deform over the tube 23 responsive to increasing pressure within the drum 7. Applicant therefore respectfully submits Gerteis does not anticipate claim 38 as amended because Gerteis simply does not disclose a self-actuating seal.

In view of the foregoing, Applicant respectfully requests reconsideration of the rejected claims and earnestly solicits early allowance of the application.

Respectfully submitted,

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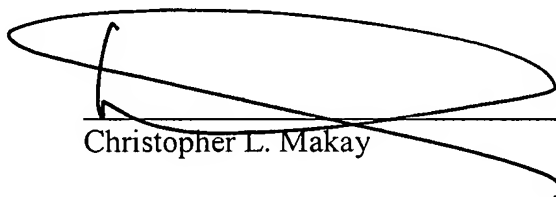


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